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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO
10/049,357	05/22/2002	Seiji Asaoka	1887	9914
75	90 11/06/2003		EXAMI	NER .
Karen G Kaiser			WELLS, LAUREN Q	
National Starch & Chemical Company Box 6500			ART UNIT	PAPER NUMBER
Bridgewater, NJ 08807-0500			1617	
			DATE MAILED: 11/06/2003	1

Please find below and/or attached an Office communication concerning this application or proceeding.

N. S.						
	Applicati n N .	Applicant(s)				
	10/049,357	ASAOKA ET AL.				
Office Action Summary	Examin r	Art Unit				
	Lauren Q Wells	1617				
The MAILING DATE of this communication appears n the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, - Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).  Status	86(a). In no event, however, may a reply be time within the statutory minimum of thirty (30) days fill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONEI	nely filed s will be considered timely. the mailing date of this communication. O (35 U.S.C. § 133).				
1) Responsive to communication(s) filed on	·					
2a) ☐ This action is <b>FINAL</b> . 2b) ☑ Thi	s action is non-final.					
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims						
4)⊠ Claim(s) <u>10-20</u> is/are pending in the applicatio	n.					
4a) Of the above claim(s) is/are withdrawn from consideration.						
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>10-20</u> is/are rejected.						
7) Claim(s) is/are objected to.						
8) Claim(s) are subject to restriction and/or election requirement.						
Application Papers						
9)☐ The specification is objected to by the Examiner.						
10) The drawing(s) filed on is/are: a) □ accepted or b) □ objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.						
If approved, corrected drawings are required in reply to this Office action.  12) ☐ The oath or declaration is objected to by the Examiner.						
Priority under 35 U.S.C. §§ 119 and 120						
13) △ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).						
a) All b) Some * c) None of:	priority under 60 0.0.0. § 110(a)	) (d) 01 (1).				
1. ☐ Certified copies of the priority documents	s have been received.					
2. Certified copies of the priority documents		on No.				
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.						
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).						
a) The translation of the foreign language provisional application has been received.  15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.						
Attachment(s)						
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6	5) Notice of Informal F	(PTO-413) Paper No(s) Patent Application (PTO-152)				

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#### **DETAILED ACTION**

Claims 10-20 are pending. The Preliminary Amendment filed February 6, 2002, Paper No. 5, cancelled claims 1-9 and added claims 10-20.

Document "AR" in the IDS filed 7/30/02, Paper NO. 6, has not been considered, as no publication date has been provided. It is respectfully pointed out that the Japanese filing date is not a publication date.

### Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 10, 15, 16, 19 and 20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 14, 24, 25, 26 and 27 of copending Application No. 10/049,361. Although the conflicting claims are not identical, they are not patentably distinct from each other. The instant invention recites a composition comprising an amphoteric urethane resin having at least one carboxyl group and at least one tertiary amino group in one molecule, and a water soluble resin. A dependent claim further recites the resin as having at least one polysiloxane bond, wherein a polysiloxane is a

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silicone polymer. '361 discloses a composition comprising an amphoteric urethane resin having at least one carboxyl group and at least one tertiary amino group in a molecule, and a silicone polymer. '361 does not explicitly recite a water-soluble resin. However, the amphoteric urethane resin of '361 is a water-soluble resin. Thus, both the instant invention and '361 teach a composition comprising an amphoteric urethane resin having at least one carboxyl group and at least one tertiary amino group in one molecule, a silicone polymer, and a water soluble resin

This is a <u>provisional</u> obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

## Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 17-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(i) Claims 17-19 are vague and indefinite, as they are confusing. McGraw Hill's Science and Technology dictionary defines a resin as "any of a class of solid or semisolid organic products of natural or synthetic origin with no definite melting point, generally of high molecular weight; most resins are polymers". Thus, it is not clear how Applicant's resin can be a liquid, as a liquid is contrary to the definition of a resin.

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### Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 10, 14, 15, 17, 18, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhatt et al. (2002/0071811) in view of Kim et al. (6,335,003).

The instant invention is directed toward a composition comprising an amphoteric urethane resin having at least one carboxyl group and at least one tertiary amino group in one molecule, and a water-soluble resin.

Bhatt et al. teach hair spray compositions containing a carboxylated polyurethane. The polyurethane contains polyoxyalkylene units, such as polyoxyethylene soft segments which impart hydrophilicity to the polyurethane. Amines, such as ethylenediamine, propylenediamine, monoethanolamine, and diglycolamine, can be added to the polyurethane resin reaction mixture. The carboxylated polyurethane resins are soluble in ethanol/water mixtures. The reference lacks tertiary amines. See abstract; [0024]-[0025]; [0036]; [0050].

Kim et al. teach cosmetically acceptable polyurethane resins. The polyurethanes are formed from at least one diisocyanate or reaction product thereof with one or more compounds containing two or more active hydrogen atoms per molecule, and at least one diol, primary or secondary amino alcohol, primary or secondary diamine or primary or secondary triamine each with one or more tertiary, quaternary or protonated tertiary amine nitrogen atoms. Propylene diamine is taught as a suitable diamine. The polyurethanes resins are taught as beneficial

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because of their flexibility and decrease of stickiness and brittleness when applied to the hair. Hairsprays and hair setting lotions are taught as preferred forms of the compositions. See abstract; Col. 1, line 41-Col. 2, line 11; Col. 2, line 58-line 65; Col. 7, line 57-Col. 8, line 7.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the tertiary amines taught by Kim et al. for the amines taught by Bhatt et al. because of the expectation of achieving a hair spray formulations that in addition to imparting excellent set retention to the hair, as taught by Bhatt, additionally decrease the stickiness and brittleness of the product when applied to the hair and maintain elasticity. Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the tertiary amines taught by Kim et al. for the amines taught by Bhatt et al. because Bhatt et al. teach diamines as part of their resins and Kim et al. teach diamines as interchangeable with tertiary amines in polyurethane resins for application to the hair.

It is respectfully pointed out that a) the carboxyl group and tertiary amine of the combined polyurethane resin result in an amphoteric resin, and that b) the combined resin is a water-soluble resin.

Claims 11-13, 16, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhatt et al. and Kim et al. as applied to claims 10, 14, 15, 17, 18, 20 above, and further in view of de la Poterie et al. (5,972,354) in further view of Bolich et al. (5,100,658).

Bhatt et al. and Kim et al. are applied as discussed above. The references lack a polysiloxane bond and anionic, nonionic, and cationic resins.

de la Poterie et al. teach cosmetic compositions comprising film-forming polymers.

Polycondensates, such as anionic, cationic, nonionic, or amphoteric polyurethanes and mixtures

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thereof are taught as film-forming polymers. The polyurethane is taught as comprising at least one silicone-containing block. The instant films are taught as supple, flexible, elastic, and as not substantially lifting off once applied. See Col. 2, line 17-line 62; Col. 3, line 3-Col. 4, line 42.

Bolich et al. teach silicones, in the form of resins, as hair conditioners. See Col. 13, lines 56-65; Col. 9, lines 51-53.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the silicone containing blocks of a polyurethane resin, taught by de la Poterie et al. to the polyurethane resin of the combined references because of the expectation of achieving a polyurethane resin that imparts conditioning properties to the hair, as taught by Bolich et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add anionic, cationic, or nonionic polyurethane resins, as taught by de la Poterie et al., to the composition of the combined references because the combined references teach amphoteric polyurethanes and de la Poterie et al. teach anionic, cationic, nonionic, and amphoteric polyurethane resins as combinable and because of the expectation of achieving compositions with films that are supple, flexible, elastic, and do not substantially lift off once applied.

#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lauren Q Wells whose telephone number is (703) 305-1878. The examiner can normally be reached on M-F (7-4:30), with alternate Mondays off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on (703)305-1877. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1234.

lqw

SREENI PADMANABHAN PRIMARY EXAMINER